NMP Lessons Learned

Elements

- **Project design**
- **Land treatment implementation**
- **Project management**
- **Water quality response**
- **Impacts on state programs**

Products

- Riparian/grazing management
- Comprehensive
- Erosion control
- Animal waste/nutrient management
- Urban
- Region 5
- Mississippi River Basin

Guidance/Tech Notes

NMP Lessons Learned

Examples of lessons from the NMP

NMP Lessons Learned

Control of implementation is key to the success of evaluation monitoring efforts at any scale.

Projects were most successful when project directors responsible for water quality monitoring had direct or indirect control over land treatment design and implementation. Control is more easily obtained in smaller scale studies and studies within areas owned or controlled by those groups or agencies conducting the studies

NMP Lessons Learned

Flexibility and continuous interpretation of monitoring data are key to achieving NPS control and water quality goals because BMPs may need to be adjusted, changed, or added based upon progress made over time.

It may be appropriate to factor monitoring into the BMP selection process, particularly for watersheds in which sediment sources may change as practices are implemented or biological response will be dependent upon both obvious and masked problems.

NMP Lessons Learned

Single-station monitoring designs should be a last resort and part of a longer-term trend monitoring effort to maximize the potential for usefulness of the data collected. Big changes in water quality must be anticipated if this design is used.

NMP Lessons Learned

With respect to biological condition, habitat parameters tend to respond more quickly when in-stream practices are installed, followed by macroinvertebrates, with fish generally the least responsive, at least over typical project time periods.

Emphasis should be placed on those habitat/physical parameters that change with treatment and influence biological response.

NMP Lessons Learned

It is not clear that GIS-based tracking provide better analytic capabilities than less-expensive spreadsheet tracking of land-based data.

No clear advantages to GIS data bases for evaluating the effectiveness of practice implementation were demonstrated by NMP projects. GIS-based tracking of land use/treatment data is appropriate for modeling.

NMP Lessons Learned

Coordination of land treatment and water quality monitoring is best accomplished when monitoring personnel have direct control over implementation; coordination is extremely difficult when implementation and monitoring are done by separate agencies or organizations.

NMP Lessons Learned

Tracking of the operation and maintenance of land treatments after implementation is very important but generally received inadequate attention from most watershed-scale projects

NMP Lessons Learned
 Impacts on State nps programs/policies

• **Approaches to nps monitoring and evaluation**

• **Design and operation of nps watershed projects**

• **NMP project data**

• **NMP BMPs**